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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,130	06/24/2003	Ronel Domingo Callueng	47338	1594
20454	7590	06/21/2004	EXAMINER	
JEFFREY C. LEW 2205 SILVERSIDE ROAD WILMINGTON, DE 19810			GORMAN, DARREN W	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/602,130	Applicant(s) CALLUENG, RONEL DOMINGO	
	Examiner Darren W Gorman	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-11, 14, 16, 17 and 19 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 12, 13, 15, 18 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "lock" as set forth in claim 3, the "proximity sensor" as set forth in claim 12, and the "alarm" as set forth in claim 15 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Minor Claim Suggestions By Examiner

2. The following change(s) are recommended to improve clarity of the claims. The claims have been examined on the merits including the suggested changes below.

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In claim 1, on line 6, [whether a the] should be replaced with --whether the--.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, 7-11, 14, 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biermaier, USPN 5,314,668, in view of Dawson et al., USPN 6,645,435.

Regarding claims 1, 4, 7-11, and 14, Biermaier shows a door handle-disinfecting device (see Figure 5) comprising: a plurality of spray nozzles (39) mounted on a door in surrounding relation to a door handle (4), whereby the spray nozzles form an aerosol of disinfecting liquid which is thereby sprayed onto the door handle from a plurality of different directions from each of the plurality of spray nozzles as the result of the expiration of any user-selected predetermined times and/or as a result of any one or combination of possible control factors which initiate operation of a controller/controlling program being effective to activate and deactivate a pump which supplies a pressurized quantity of the disinfectant liquid to the plurality of spray nozzles (see column 5, lines 26-38). Inherently, the device shown by Biermaier would have a source of electrical energy such that power may be supplied to the pump and controller. Biermaier further teaches that the control of the disinfecting spray may occur at certain predetermined time intervals, thereby constituting a "maintenance spray program", or can be "made operative in response to manipulation of the door handle, such as after each individual manipulation or

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following a given series of such manipulations” which constitutes a controlling program which responds inherently to a signal from a handle operation sensor for initiating the disinfecting process (see column 6, line 67 through column 7, line7). Since Biermaier expressly discloses that the disinfecting process may be made operable after each manipulation of the door handle, it is inherent that the controlling program is configured to utilize the handle operation signal to prevent activation of the pump when the handle is in operation by a hand, and further that the handle operation signal indicates that the handle is not currently in operation by a hand, and in which inherently the controlling program would comprise a handle-in-use triggered delay which would be operative to postpone activation of the pump until immediately after a pre-selected elapsed time following generation of the handle operation signal. Broadly speaking, the disclosure of Biermaier expressly states that activation of the door handle sterilization process is programmed in response to any “predetermined state or function sensed” (see column 7, lines 10-14).

Biermaier however does not expressly disclose a housing mounted on the door containing a vessel, which contains the disinfectant material, nor does Biermaier expressly disclose the inherent source of electrical power as being a battery. Further, Biermaier does not expressly disclose the handle operation sensor as being photoelectric.

Dawson et al. teach a door handle-disinfecting device which includes a housing containing a disinfecting solution reservoir (40) being mounted externally to a door (5) (see Figure 3), the disinfecting solution reservoir being operable to supply disinfecting solution to the door handle (20) via an electrically powered pump (30) (see column 4, lines 29-41), which is powered by a battery (see column 3, lines 32-36) in response to a control signal generated by any

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of a variety of sensing devices, one alternative of which being an optical control sensing device (photoelectric) (see column 5, lines 1-10) which are well known in the art for detecting the presence of a human body part (i.e. automatic bathroom faucets, automatic soap/hand disinfectant dispensers, automatic hand dryers, etc.).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a housing with a reservoir for the disinfecting material mounted exteriorly on the door, as taught by Dawson et al., with the door handle disinfecting device shown by Biermaier, such that the apparatus can be removed from a particular door and mounted onto a different door.

It would further have been obvious to one having ordinary skill in the art at the time the invention was made to use a battery as the source of electrical power for the device, as taught by Dawson et al., with the device shown by Biermaier, so that the device can be wireless.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a photoelectric cell/optical sensor, as taught by Dawson et al., as the handle operation sensor for the device shown by Biermaier, since photoelectric cell/optical sensors are well known in the art for generating a control signal for a control circuit which operates an automatic dispenser.

Regarding claims 16, 17, and 19, the apparatus as taught by Biermaier and modified by Dawson et al. is capable of performing the method steps as set forth in claims 16, 17, and 19. Therefore, the method follows the apparatus.

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5. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biermaier, as modified and applied to claim 1 above, and further in view of Chastine, USPN 6,123,268.

Biermaier, as modified above, teaches all of the claimed limitations as set forth in claim 1, however the device is not expressly taught wherein at least one of the nozzles is adjustable, nor is the device expressly taught wherein a lock is adapted to fix the direction of the spray.

Chastine shows an angularly adjustable nozzle (16) (see Figure 2), which allows the nozzle spray to be adjusted to a variety of angles/directions. Further, Chastine shows a locking device (28) for locking the nozzle in a desired angular orientation to prevent the nozzle from changing the desired angular orientation (see column 4, lines 10-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify at least one of the nozzles shown by Biermaier, to be angularly adjustable and also lockable, as taught by Chastine, in order to adapt the disinfecting device to any type or size door handle which the user wishes to regularly disinfect, and to further lock the angular position of the nozzle to prevent the nozzle from changing the desired angular orientation.

Allowable Subject Matter

6. Claims 5, 6, 12, 13, 15, 18, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents to Oyama, Winings et al., and Goodin et al. are cited as of interest.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W Gorman whose telephone number is 703-306-4205. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on 703-308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Darren W Gorman
Examiner
Art Unit 3752

DWG 6/16/04
DWG
June 16, 2004

Michael Mar
MICHAEL MAR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700